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Environmental

H. Thomas Fridirici
PADEP
Southcentral Regional Office
909 Elmerton Avenue
Harrisburg, PA 17110-8200

Subject
Pre-Drilling Plan Addendum Response to Email Comments
Proposed [redacted] South Water Supply Well,
Bally Groundwater Contamination Superfund Site,
Bally Borough, Berks County, Pennsylvania

Date
11 August 2004

ARCADIS Project No
NP000597.0002.0005A

Contact
Michael Bedard

Dear Mr. Fridirici:

Extension
(267) 685-1800

ARCADIS is writing in response to the comments contained in an email received from Mitch Cron of the USEPA sent on August 5, 2004 regarding the Pre-Drilling Plan Addendum (PDPA) for the aquifer test at the [redacted] south site. The numbered comments from the USEPA email are included below in italics with ARCADIS's response following in standard text. An additional email comment received on August 10, 2004 from Greg Unger of Systems Design Engineering, Inc. (SDE) is listed as comment A.

USEPA Comments

I've had an oppty to discuss the addendum with Tom (PADEP) and Kathy (EPA). Tom is the correct regulatory authority with regard to the pump test/permit. However, I'd like EPA's comments regarding the addendum to be addressed at this time as well. Based on my review of the addendum, and conversations with Tom and Kathy, I have the following comments for ARCADIS re: the addendum.

1. Please specify in the addendum the size and hydration time of the "bentonite pellets", referenced on Figure #2.

The size of the bentonite pellets referenced on Figure #2 (attached with slight revisions for clarification) will be 1/4 inch. Hydration time will not be limited since the piezometer clusters are expected to be placed in saturated soils with their location near or in the stream. However, a sufficient amount of potable water will be added, if necessary to fully hydrate.

2. On Page 3 of the text, you say precipitation data will be collected from the nearest weather monitoring station available on-line. As precipitation in our area can often be very localized and intense, we'd like an on-Site rain gauge. I've talked with Tom briefly regarding this, and I believe he's of the same mind.

A rain gauge will be placed at the site for the pre-test, test, and post-test monitoring. The anticipated frequency is daily for monitoring of the rain gauge.

3. Can you describe what kind of evaluation you'll be performing with regard to the residential wells ([redacted] etc.)? On table 1 you indicate that you'll be using a data logger and will collect readings on a constant interval. Just so we're clear, the residential wells will not be "shut off" during the pump test, or will they? If they'll continue to be used by the residents, is your evaluation of residential wells a more qualitative one (?); basically an impact/no-impact evaluation? Please give me a paragraph on how those wells will be evaluated during the pump test, just so I'm clear.

The residential wells will not be shut off during the test. These wells will be used in an effort to qualitatively monitor potential impact of pumping at the [redacted] South location on current resident's wells.

4. If you decide to retrofit the current "[redacted] pilot boring", where would the 5th monitoring well go (discussed on page 2 of the text)?

The fifth observation well would be located at the Shuhler South location which is the currently proposed supply well.

5. On Figure 1, you've mapped the scenario where you drill a new 8" well, called "[redacted] South". Based on this mapped scenario, the location of Proposed Observation Well #2 is acceptable - basically "on strike" between [redacted] South and Municip. Well #1 and Municip. Well #3. However, if you decide to use [redacted] Pilot Boring" please be aware that we want Observation Well #2 to be located accordingly - basically "on strike" between the to-be-pump-tested-well and Municip. Wells #1 and #3.

The location of Observation Well #2 would be adjusted accordingly if [redacted] Pilot Boring is used as the pumping well.

6. I have a preferred piezometer cluster location in the wetland - south of "[redacted] South" proposed boring location, in the wetland area, at the intersection of the EPA fracture trace and the ARCADIS fracture trace. Also, can you provide me with a paragraph describing the logic behind the locations of Piezometer Clusters #1 and #2.

The piezometer nest will be relocated to the preferred location, assuming the location can be reasonably accessed. These locations were selected to identify whether the stream was gaining or losing (and whether this changed as a result of pumping). As

such it was intended that these point be placed as close to the stream as possible. The existing locations were selected based upon site knowledge and expected access difficulties in an attempt to minimize wetland impacts.

SDE Comment

A. I would like to see 97-23I or 97-23D included in the monitoring to track the leading edge of the 10 mg/l VOC line.

Well 97-23I or 97-23D will be added to the monitoring program. In addition the leading edge of the VOC line as presented on ARCADIS' figures is 10 micrograms/liter (ug/l) not 10 milligrams/liter (mg/l).

Summary

Please provide us your comments or approval of the plan as soon as possible.

Sincerely,

ARCADIS G&M, Inc.

Michael F. Bedard, P.E.
Project Manager

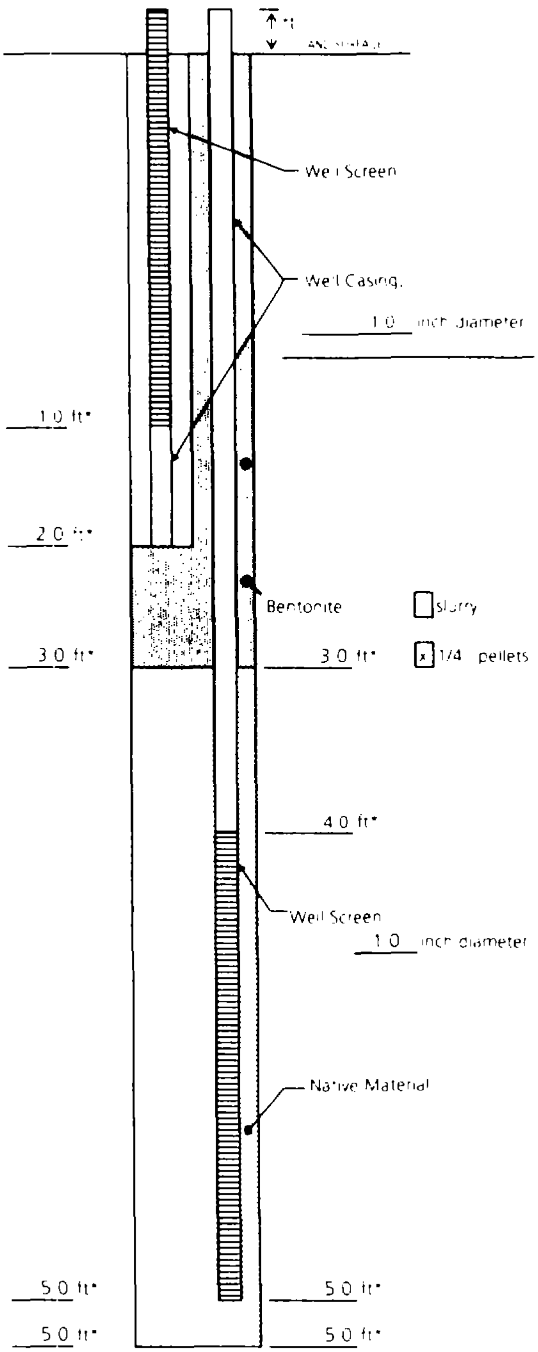
Attachments

Copies:
Susan Werner, PADEP
Tom Grub, PADEP
Mitch Cron, USEPA
Toni Hemerka, Bally Borough
Greg Unger, Systems Design Engineering, Inc.
Jeff Peffer, Peffer Geotechnical Corp.
Lorelei Borland, American Household, Inc.
Chris Akins, Sunbeam Products, Inc.
Chris Ann Gahagan, Sunbeam Products, Inc.

ARCADIS G&M

Proposed Well Construction Diagram

Unconsolidated



- Project: NP000597.0002.0005 — Well: Piezo Nest 1 & 2
- Town/City: Washington Township
- County: Berks — State: PA
- Permit No:
- Land-Surface Elevation and Datum: ______ feet ☐ Surveyed ☐ Estimated
- Installation Date(s):
- Drilling Method: Direct Push
- Drilling Contractor:
- Well Purpose: Observation, temporary
- Remarks:
- Prepared by:

Measuring Point is
Top of Well Casing
Unless Otherwise Noted

* Depth Below Land Surface

Figure 2_Proposed Piezo Nest ... comments
8/12/2004

AR300289